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ABSTRACT

This study, which was primarily experimental in nature, sought to determine whether cooperative argumentative writing, in contrast to competitive individual writing, has positive effects on student performance and attitudes. A brief qualitative analysis using student questionnaires, journals, and interviews (n=73) was conducted to assess students' attitudes toward cooperative learning. Using analysis of covariance as a statistical measure, the study determined that freshman college students write as well in a cooperative group environment as they do individually. The results also indicate that by using cooperative groups to write argumentatively, cooperative learning can become a valuable pedagogical tool when integrated into the college writing classroom. Although these qualitative data reveal that students respond somewhat negatively to certain aspects of cooperative learning, their attitudes did not impede the quality of their writing, and many acknowledge that the overall experience was positive. (Contains 2 figures and 31 references.) (SLD)

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Running head: COOPERATIVE WRITING IN THE COLLEGE CLASSROOM

ED 477 450

# Does Cooperative Learning Belong in the College Writing Classroom?

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**Abstract**

Almost all previous studies in this area are case-studies, talk-aloud protocols, or anecdotal. This study, however, was primarily experimental in nature and sought to determine whether cooperative argumentative writing compared to competitive, individual writing positively affects student performance and attitudes. A brief qualitative analysis using student questionnaires, journals, and interviews was conducted to assess students' attitudes toward cooperative learning.

Using ANCOVA as a statistical measure, this study determined that freshman college students write as well in a cooperative group environment as they do individually. Second, the results of this study indicated that by using cooperative groups to write argumentatively, cooperative learning can become a valuable pedagogical tool when integrated into the college writing classroom. Although our qualitative data reveal that the students responded somewhat negatively to certain aspects of cooperative learning, their attitudes did not impede the quality of their writing, and many acknowledge that the overall experience was positive.

**Introduction**:

The President's signing of the *Leave No Child Behind Act* of 2002 presents one of the greatest challenges yet to face educators, administrators, educational researchers, and students. This act has clearly shifted the emphasis away from the Department of Education's role as data collector and dispenser of educational funding to a proactive policy maker and reformer. Central to the Dept.'s new role are issues of increased accountability, improved academic performance, character education, and preparing future teachers (Dodge, K., Putallaz, M., and Malone, D. 2002).

Cooperative learning is one of the most promising innovative tools to emerge that addresses the *Leave No Child Behind Act*, creating the potential for students to become more accountable for their own learning while improving their academic performance. This is evidenced by the abundance of recent research that demonstrates students frequently perform better when they are engaged in problem-solving tasks and asked to work cooperatively. Furthermore, cooperative learning has been shown to foster positive attitudes toward working with others, create thinking skills necessary to acquire and integrate knowledge, incorporate an expanded used of knowledge and task specialization, and address issues of feedback that help to foster meaningful learning habits within the learner (Marzano 1992). Research conducted by Johnson, Johnson, and Holubec (1990) confirms that attitudes, skills, and values are learned from peers that are not readily learned from adults. Interaction among peers, they contend, promotes prosocial behavior through support for one another, modeling, and reinforcing learned behaviors, ultimately leading toward learner autonomy.

**The Problem:**

Despite the preponderance of research into cooperative learning, some research indicates cooperative learning may be context specific and not suitable for all learning situations. Also, although most teachers acknowledge the efficacy behind cooperative learning, surprisingly few college instructors incorporate cooperative learning into the classroom. Ervin and Fox (1994) maintain that philosophical and political reasons exist within the academy that discourage the use of cooperative strategies and cite university guidelines that encourage competition rather than cooperation. In addition, Ede and Lunsford (1985) agree that especially within the college setting, the historical attitude among professors maintains that the solitary individual is the foundation of knowledge, that good scholarship necessitates withdrawal from the real world of distractions and immersion in solitary study continues to permeate. A specific question now arises: Can cooperative learning techniques be applied to college writing, and if so, can college instructors be persuaded to incorporate these techniques into their classrooms?

**Methodology:**

All the students for this study were enrolled in the second course of English composition at a mid-sized, southern university during the Fall semester of 2000. Four separate sections of freshman composition were compared for performance and attitude gains. The majority of students ranged in age from 18 to 19, but some students were nontraditional (above 25 years old). From the initial pool of 108 students (27 per class), a total of 35 withdrew or stopped coming to class before the end of the semester; as a result, the remaining students ($\underline{N}$=73) were used in this study. The data in this quantitative study were evaluated using a two-way analysis of covariance (ANCOVA).

The independent variable, Condition of Learning, had two sublevels, Cooperative Learning vs. Independent Learning writing performance. Cooperative learning was chosen as one sublevel of investigation to determine students' problem-solving abilities within a cooperative environment. ANCOVA was chosen as a statistical measure to reduce the probability of a Type II error and to increase statistical power.

All four sections of composition underwent the same instruction for the eight weeks prior to the treatment period. A preperformance writing assessment was conducted in-class three weeks after class began. The writing prompt, which required an argumentative response, was given to all sections four days prior to writing for their consideration. However, students were not allowed to bring any notes to class. During the remainder of the pretreatment period, basic instruction continued and included readings and activities from the text that addressed the essential elements of good writing.

The treatment period for all four classes spanned the final eight weeks of the semester. Two classes wrote three compositions independently; two classes wrote cooperative papers. Group investigation as a cooperative enterprise is appropriate for those projects that "deal with the acquisition, analysis, and synthesis of information in order to solve a multi-faceted problem" (Slavin 1990). Cooperative group placement was determined by low achievers, middle achievers, and high achievers and followed a modified version of Slavin's task specialization method of cooperative learning. Cooperative groups consisted of three students selected by achievement levels.

At the beginning of the treatment period, students were assigned to groups of three. Although the students were never told the rationale for group assignments, each was chosen for a

specific group according to previous performance on his or her *precis* and pretreatment argumentative essays. Students who had placed highest in their writing assignments were segregated and distributed among the remainder of the class members to create similar ability groupings. Also, consideration was given to gender; no group was all male or female. These groups remained intact for the duration of the treatment period although four students total had to be shifted to another group when a student withdrew from the class.

Each student in each group of three had separate tasks to complete for each writing assignment. After the group negotiated among the members what topic they wanted to argue, their topic was submitted for approval. After their topic was approved, the group was required to divide their work into three separate tasks. One student was responsible for physically composing the paper and submitting it on time. (The other two students were encouraged, however, to proofread drafts and suggest changes before final submission of the paper.) Another student was solely responsible for researching the pro position and the third member researched the con position. Students were given approximately two weeks to complete each writing assignment.

Shortcomings in conventional approaches to assessment of writing and the advent of cognitive psychology during the late 1970s led to new approaches to writing assessment. One such approach, holistic scoring, is predicated on the theory that writing is a constructive mental process that cannot be separated from the social, linguistic, and situational context in which it is written (Camp 1993). Holistic scoring evolved from the belief that measurement of student writing is best assessed by an "interpretive community," not through the indirect methods commonly found on standardized tests. Holt (1993) argues that holistic scoring of student writing should be used for a variety of purposes including placement and exit exams as well as

performance rankings for research on writing.

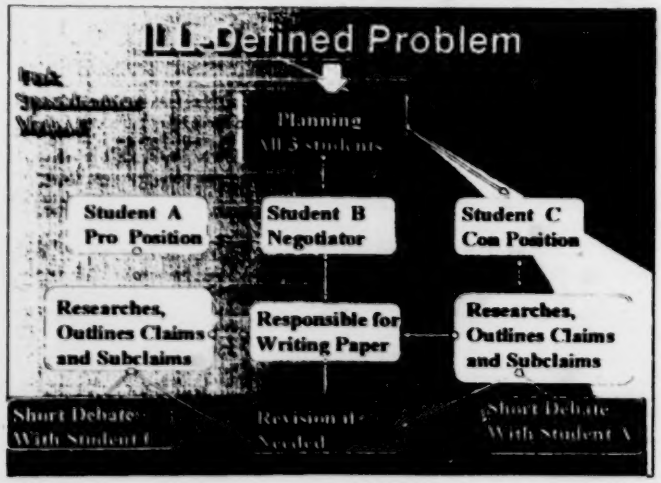
This study used holistic assessment for the pretreatment writing sample and as a measure for the dependent variable, performance. Issues of validity were addressed through the use of trained raters who first attended an anchoring session conducted by the Director of Freshman Composition. All raters were professional English teachers who teach composition on a regular basis. A six-point rubric that has been used extensively for previous writing assessments was used and validated through the anchoring session. Scores were reported on a one to six point continuum; disagreements of more than one point of the rubric were passed to a third rater.

One of the two dependent variables, writing performance, was measured using holistic scoring on a six point rubric (Appendix E). The Director of Freshman Composition, who has previously conducted over eighty such assessments, selected six members from the university's English Department to read and rate the pretreatment and posttreatment compositions. The assessment took place over a two-day period at the end of the semester. A coin was flipped to determine whether the pre or posttreatment essays would be evaluated first. The raters were deliberately left uninformed regarding the type of research being conducted.

Prior to rating the compositions, three representative anchor papers were selected by the researcher and director among all pretreatment compositions. Anchor papers were selected that demonstrated high, low, and middle performance. At the first assessment session, copies of the anchor papers were distributed among the raters and each level of the rubric was clarified. Each of the six raters was asked to rate the anchor papers and encouraged to explain his or her rating. Afterward, the raters worked with a partner to rate all the pretreatment compositions. The same process was followed the following day for the posttreatment compositions.

Reliability for both assessment sessions was calculated by the raters achieving scores within one point of their partner. The Director of Composition set this benchmark based on previous experience with holistic scoring. Scores that fell within one point, therefore, were said to be reliable; those that fell outside went to a third reader. Regardless of whether a composition required two or three ratings, all individual compositions were measured using the average of all ratings. No data were eliminated. Reliability coefficients for the three groups of raters for the pretreatment session were .63, .70, and 77. For the second posttreatment session, reliability coefficients were .80, .86, and .92.

Adaptation of Slavin's Task Specialization for cooperative writing groups

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**Research Design**

(Please note: several independent variables shown in this design are part of a larger study conducted but are not included as part of this proposal on cooperative learning.)

| Premeasurements | | | | | Treatments | | | Postmeasurements | |
|---|---|---|---|---|---|---|---|---|---|
| D | A | WS | CI | MID | C | C | C | A | P |
| D | A | WS | CI | MID | Ro | Ro | Ro | A | P |
| D | A | WS | CI | MID | Ro/C | Ro/C | Ro/C | A | P |
| D | A | WS | CI | MID | C/C | C/C | C/C | A | P |

Pretests

D: Demographic survey

A: Attitude survey

WS: Pretreatment performance writing sample

CI: Concept inventory measurement (instructor created)

MID: Measure of Intellectual Development

Treatments

C: Classical argumentation (part of the larger study; not a part of this proposal, though)

Ro: Rogerian argumentation (part of the larger study conducted, not a part of this proposal, though

Ro/C: Rogerian argumentation with cooperative learning

C/C: Classical argumentation with cooperative learning

Posttests

A: Attitude survey (WASS)

P: Posttreatment performance writing sample

**Qualitative component:**

Students in the cooperative learning group were asked to keep a journal log of their experiences researching and writing as a cooperative unit. In their journal responses, the students expressed some common complaints about the obstacles of working in groups: too much time spent working outside the classroom, personality conflicts, unmotivated group members, and group grades. However, some of these frustrations can be interpreted as valuable learning moments. For example, toward the beginning of the semester, one student remarked that "one member of the group is not a very strong writer [,] and the others are having to spend more time helping that member achieve the objective." Although this student perceived helping another group member as a problem with cooperative learning, it is clear that this student was not only a learner in this group but a teacher as well. This student gained valuable leadership and group diplomacy skills via this experience, which is evident in the student's comment early in the semester: "The group seems fairly willing to do what it takes for all of the other members to do well." This comment supports Bush's *Leave No Child Behind Act* in that the struggling writer in this group is visibly receiving help from fellow group members instead of falling behind in the class. Despite the expected problems of working in groups, students seemed to recognize that the aggravations were worth the sacrifices. This dichotomy is plainly expressed in this student's comment: "At this stage I feel pretty good about cooperative learning, but it does take a lot of outside time. You are benefited by getting other's help and perspective. You are also at a disadvantage because of scheduling conflicts and creative differences." Other students found cooperative learning an entirely positive experience: "It was fun working with three other persons as opposed to one other person. I learned how to take up control when I sense [sic] some slackening." In addition

to helping slower students, learning important leadership skills, and communicating effectively with group members—skills that students need elsewhere in college and in industry—these students also experienced "deep level learning" while working in groups (Kates 2002). An analysis of their journal entries over the course of the semester revealed that students were able to understand concepts and more effectively and efficiently handle difficult rhetorical situations that they had encountered early in the semester. In short, students reflected on why they struggled with certain aspects of the writing assignments and learned how to improve their situation, rather than repeating the same mistakes repeatedly. For instance, all the members of one group wrote in their journals about time management skills. Although at first they blamed working in groups as the reason for handing in their paper late, one student wrote in her second journal entry that she had decided to compose her next paper "days before it was due to give myself plenty of time to revise it as much as possible." Indeed, most students were initially resistant to cooperative learning, but eventually recognized its benefits for critical thinking, project management, and diplomacy skills.

**Results, Recommendations, and Implications:**

Although this study did not find a statistically significant increase in student writing performance by working in cooperative groups, these findings have important theoretical and practical implications. First, even though student performance did not increase, cooperative writing did not hinder these students' performance, either. If additional research confirms these findings, writing instructors may periodically assign cooperative papers to significantly reduce the grading burden while requiring students to write more frequently.

Second, and more importantly, many students during the treatment period indicated

through surveys, questionnaires, and one-on-one discussions that although they preferred to write independently, they understood the value of cooperating with others. Most students freely admitted that for their own good, experiencing cooperative assignments would be valuable for their future well-being, especially in the workplace. Furthermore, during class workshops when students worked in cooperative groups, they were found to be discussing how to best organize their time, focus on the problem, and delegate tasks and responsibilities. Also, some of the best students were observed offering advice to the less capable students on aspects of organizing and researching their tasks. Whether the best students were helping the others out of a sense of altruism or simply because their grade depended on their cooperative efforts is not known. However, it is clear that the students' time in planning and executing the writing assignments significantly increased. Students, then, working cooperatively in writing communities, were observed to "scaffold" and create a dialectic between self and community.

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